Welcome to the 10th Annual Scholar Showcase

Co-sponsored by
USC Aiken Center for Research Excellence
USC Aiken Center for Teaching Excellence
Scholar Showcase
Schedule of Events

Thursday, April 13, 2017

3:00pm -4:00pm  Registration (t-shirt pickup) & Poster Hanging
Reception & Group Photo (3:45pm)

4:00pm      Keynote Speaker

Michael J. Barresi, Smith College, Northampton, MA
“Merging Research and Teaching with Course-Based Research Experiences
to Tackle Wicked Problems and Foster Deep Student Learning.”

Friday, April 14, 2017

Oral Presentations
9:00am – 2:00pm

Poster Presentations
2:00pm – 3:00pm   Poster Session 1 (Odd Numbered Presentations)
3:15pm – 4:15pm   Poster Session 2 (Even Numbered Presentations)

Chancellor’s Remarks
3:00-3:15pm
Oral Presentations

Session A: Gregg Graniteville Room
Dr. Meredith Elzy and Dr. Jessica Sullivan, Presiding

9:00 Being an Adolescent During the Chinese Cultural Revolution
Alicia Hines
Mentor: Dr. Claxon

9:15 Inside Look at Freshmen-Sophomore Internships
Collytte Cederstrom
Mentor: Dr. William Harpine

9:30 Can the Length of Multiple Choice Answers Predict the Correct Answer?
Kelci Gardner, Erin Bunts, Abbi Glitman
Mentor: Dr. Bing Han

9:45 Comparison Between a Physical and Psychological Stressor
Ifeoluwa Ekundayo
Mentor: Dr. Keri Weed

10:00 Mortality and Fertility Changes in Hungary Between 1984 and 2013
Alicia Hines
Mentor: Dr. Deanna Gore

10:15 The Influence of Perceived Control Over Task Difficulty on Coping with Math Anxiety
Christine Hartmann
Mentor: Dr. Keri Weed

10:30 Sporting Activities Allow People to Become More Social
Victoria Caldwell, Brielle Jungblut, David Lankster
Mentor: Dr. Bing Han

10:45 Effects of Diabetes on Working Memory
Taylor Coleman
Mentor: Dr. Alexandra Roach

11:00 Break

11:15 Patterns of Induced Dormancy in Aegiolops triuncialis
Julia Phuong Mi Vu
Mentor: Dr. Andy Dyer

11:30 Identifying Human Fecal Pollution in the Horse Creek Watershed using Quantitative PCR
Kara Lynn Norris
Mentor: Dr. Michele Harmon

11:45 Aspects of Queen Triggerfish Reproductive Biology
Hillary Rich
Mentor: Dr. Virginia Shervette
12:00 The Effects of Sports Related Head-Impact on Neurocognitive Functions and Balance
Shaquanda D. Ross-Simmons
Mentor: Dr. Michelle Vieyra

12:15 Determining the Sequences Involved in \textit{mPing} Transposition
Jazmine I. Benjamin
Mentor: Dr. Nathan Hancock

12:30 Transgenerational Plasticity: A Possible Mechanism for Rapid Adjustment in Invasive Species
Melissa Groleau
Mentor: Dr. Andrew Dyer

12:45 Population Demographics of Sunfishes in the Edisto River
Rosie Curiel
Mentor: Dr. Virginia Shervette

1:00 The Effects of Caffeine and Sugar on Adipose Tissue Accumulation, Memory, and Anxiety in Rats
London Vickers
Mentor: Dr. Michelle Vieyra

\textbf{Session B: Old Veterans Center}
\textbf{Dr. Philip Mason and Dr. Jeremy Culler, Presiding}

10:15 The Poetic Voice of Child Labor in Industrial Britain: Its Literary and Social Contexts
Sarah Marie Elizabeth Williamson
Mentor: Dr. Julie Wise

10:30 Behavioral Patterns, Competition & Anonymity
Stuart Walker
Mentor: Dr. Ben Triana

10:45 Anonymous Video Game Communities & Social Behavior
Stuart Walker
Mentor: Dr. Bing Han

11:00 Break

11:15 Honors Capstone: Equity in Reading Education and Students Most at Risk
Taylor Harling
Mentor: Dr. Ashlee Horton

11:30 Gender Difference in Cell-Phone Addiction
Laney Moore, Aubrey Owens, Joseph Higgenbottom
Mentor: Dr. Bing Han
11:45 Capturing What You Can’t Usually See: The Underwater Nature Photography of Charlie Hamilton James and Paul Nicklin  
**Michaeala E. Day**  
Mentor: Dr. William Harpine

12:00 Adaptation of International Students at USC Aiken  
**Lauren Carver, Adrielle Cooper, Talia Brandenburg-Mays**  
Mentor: Dr. Bing Han

12:15 Cultural Impact on Romantic Relationships in the Novels *Wild Ginger* by Anchee Min and *Scarlet Song* by Mariama Bâ  
**Victoria Lynn Bush**  
Mentor: Dr. Bill Claxon

12:30 Break

12:45 The Battle of Bachelorhood and Domesticity in William Gilmore Simms’s *Castle Dismal*  
**Meredith Grace Hawcroft**  
Mentor: Dr. Todd Hagstette

1:00 The Effects of Speaker Credibility in Race Relations: A Study of Two Speeches  
**Davonte' Jenkins**  
Mentor: Dr. William Harpine

1:15 The Role of Social Media in Romantic Relationships  
**Destiny Lynn Combs, Cyndle Leigh McGuinness, Alanna Jessica Berrie**  
Mentor: Dr. Bing Han

1:30 Social Media Usage and Communication Skills: A Relational Study  
**Taylor Weatherford, William Palmer, Alexander Edward Prescott**  
Mentor: Dr. Bing Han

1:45 The Differences in Goal-Achieving in Male and Female Sports Teams  
**Joshua Imholte, Hunter Lathrop, Atiya Fields**  
Mentor: Dr. Bing Han

**Session C: Back Library Area**  
**Dr. Kristina Ramstad and Dr. Nick Marshall, Presiding**

9:00 The Development of a Plasmid Based System to Test Anti-HIV1 siRNAs that Target the Accessory Protein VIF  
**Rebecca Beaudry**  
Mentor: Dr. William Jackson

9:15 Generating mef2ca and mef2cb Transgenic Zebrafish Lines Using BAC-mediated Recombination  
**Kenneth Glenn**  
Mentor: Dr. April DeLaurier
9:30  Understanding the Function of kdm1a using CRISPR/Cas9 in Zebrafish
Frances Loyo
Mentor: Dr. April DeLaurier

9:45  Generating a HIV-1-dependent Vector to Deliver a Suicide Gene
Natalie M. Arthur
Mentor: Dr. William H. Jackson

10:00 Honors Capstone: Zebrafish Mutagenesis
Tiana LaTrell Chandler
Mentor: Dr. Nathan Hancock

10:15 Honors Capstone: HIV-dependent Expression of an Anti-Retroviral Gene
Erin McLaughlin
Mentor: Dr. William Jackson

10:30 Honors Capstone: Creating a Transgenic Line to Study the Role of Osteoclasts in Zebrafish Development
Brianna Snelling
Mentor: Dr. April DeLaurier

10:45 Testing Strategies to Produce Targeted Insertion of mPing
Mary E. Roby
Mentor: Dr. Nathan Hancock

11:00 Break

11:15 The Friendship Theorem
Alyson Cromer
Mentor: Dr. Mohammad Hailat

11:30 Honors Capstone: The Implementation of Holographic Technologies to Assist Study and Learning Techniques
Jonathan Hoyle
Mentor: Dr. Zhenheng Li

11:45 pH Dependence of 2,4’-dihydroxyacetophenone Dioxygenase
Jason Weeks
Mentor: Dr. Ken Roberts

12:00 Los Estados Andinos: An Exercise in Economic Integration
William Bradford Prothman-Roberts

12:15 Honors Capstone: The Chinese 'One Belt One Road' and 'AIIB' Infrastructure Initiatives: An Analysis
William Bradford Prothman-Roberts
Mentor: Dr. David Harrison

12:30 Abundance in a World of Scarcity: The Vision of Peter Diamandis
Grant L. Robinson
Mentor: Dr. William Harpine
12:45  Honors Capstone: An Exploratory Study of College Students' Attitudes Toward Spanking  
       **Ayesha Jihad**  
       Mentor: Dr. Melencia Johnson

1:00  Honors Capstone: The Effect of Sleep on USCA Nursing Students' Exam Performance  
       **Aleisa Baksh**  
       Mentor: Dr. Mary Gaffney

**Poster Session**

Poster 1. Determining the optimum DNA extraction technique for avian tissues  
**Haley Stone and Michaela Day**  
Mentor: Dr. Kristina Ramstad

Poster 2. Death of Men in Charleston  
**Breona White**  
Mentor: Dr. Andy Dyer

Poster 3. Examination of Ranavirus sequence variation within and among wetlands and amphibian species on the Savannah River Site  
**Mariela Muniz-Gonzalez**  
Mentor: Dr. Kristina Ramstad

Poster 4. Domestic female workers who died of a Cerebral Hemorrhage in Aiken, SC in 1944 and 1954  
**Kimberly Williams**  
Mentor: Dr. Andrew Dyer

Poster 5. Effects of community structure on the prevalence of ranavirus and chytridiomycosis in amphibians  
**Michael Anzalone**  
Mentor: Dr. Kristina Ramstad

Poster 6. Identifying the Fluvial Tidal Transition Zones on the South Eastern Flood Plain  
**Colby Hunter and Fincher Roberts**  
Mentor: Dr. Jessica Sullivan

Poster 7. Remote monitoring of nest attendance and fledging success in threatened wood storks  
**Michaela Elizabeth Day and Rachel Elizabeth Saxon**  
Mentor: Dr. Kristina Ramstad

Poster 8. Do Infectious Diseases Discriminate?  
**Joseph R Smith**  
Mentor: Dr. Andrew Dyer

**Colby Hunter Finch**  
Mentor: Dr. Andrew Dyer
Poster 10. Insanity by the Sea
**Brenda Lynne Pou**
Mentor: Dr. Andrew Dyer

Poster 11. The Effects of Land Use Change on Salt Marsh Geomorphology in a Semi-closed Basin
**David Hodges**
Mentor: Dr. Jessica Sullivan

Poster 12. Tuberculosis Ravages Black Population of Aiken County
**Bridgette Dell Sullivan**
Mentor: Dr. Andrew Dyer

Poster 13. Impacts of Floodplain Morphology
**Joseph R Smith**
Mentor: Dr. Jessica Sullivan

Poster 14. Lifespan differences among races and gender in 1940 and 1960
**Debbie Stephany Figueroa Orellana**
Mentor: Dr. Andrew Dyer

Poster 15. Growing Local: An Anthropological Case Study of Organic Farming in the Central Savannah River Basin
**Katie Kule**
Mentor: Dr. Troy Wilson

Poster 16. Cause of Death of Women in Child-bearing Years as a Function of Race
**Mary E. Lamb**
Mentor: Dr. Andrew Dyer

Poster 17. Developing a HIV-1 Dependent Lentiviral Vector that Expresses an Innate Human Anti-Retroviral Gene
**Mckenzie Spires**
Mentor: Dr. William Jackson

Poster 18. Living to Die, comparing death from infectious deceases and organ failure in Beaufort county (1920s and 1960s)
**Arthur Owiriwa**
Mentor: Dr. Andrew Dyer

Poster 19. Determining the Optimal Ratio of ORF1 to Transposase for *mPing* Transposition
**Reese Nelson King**
Mentor: Dr. Nathan Hancock

Poster 20. Are Wood Storks Nest Parasites?
**David Hodges**
Mentor: Dr. Kristina Ramstad

**Sarah M. Zamiela**
Mentor: Dr. Nathan Hancock
Poster 22. Developing and Using *Tol2*-based Activation Tag Constructs for Zebrafish Mutagenesis

**Allison Swiecki**
Mentor: Dr. Nathan Hancock

Poster 23. *mPing* as a tool for activation tagging in *Danio rerio*

**Alec Jones**
Mentor: Dr. April DeLaurier

Poster 24. Cloning a reporter plasmid to test a siRNA targeting HIV-1 Vif

**Alyssa Smith**
Mentor: Dr. William Jackson

Poster 25. Using siRNAs to downregulate HIV-1 Tat expression and decrease viral production in siRNA-protected T lymphocyte populations

**Christian Fay**
Mentor: Dr. William Jackson

Poster 26. Developing an Activation Tagging System for Wheat Mutagenesis

**Amanda Ruth Askins**
Mentor: Dr. Nathan Hancock

Poster 27. Determining the role of homologous recombination in replicative transposition of *mPing*

**Lisette Payero**
Mentor: Dr. Nathan Hancock

Poster 28. T-Bid expression in ptBidTNG(INS2)R to induce Apoptosis in a HIV infected Cell

**Johnny Jude Carroll**
Mentor: Dr. William Jackson

Poster 29. Product Inhibition in the Reaction Of 2,4’-Dihydroxyacetophenone Dioxygenase

**Ineisha Herrington**
Mentor: Dr. Kenneth Roberts

Poster 30. Determining the Role of *Ldlrap1a* in Craniofacial Development in Zebrafish

**Kali Wiggins**
Mentor: Dr. April DeLaurier

Poster 31. The Metal Dependence of 2,4’ dihydroxyacetophenone dioxygenase

**Ben Hutto**
Mentor: Dr. Kenneth Roberts

Poster 32. Cloning an anti-HIV vif siRNA to prevent vif association with APOBEC3G

**Kirstyn Denney**
Mentor: Dr. William Jackson

Poster 33. Measuring the Solvent-Isotope Effect of Deuterated Water on 2,4’-Dihydroxyacetophenone Dioxygenase

**Catherine Haley Cave**
Mentor: Dr. Kenneth Roberts
Poster 34. The Systematic Marginalization of Black Male Students  
**Hannah Elaine Jameson**  
Mentor: Dr. Deborah McMurtrie

Poster 35. Interdisciplinary Approach to Teaching Elementary Mathematics  
**Ashley Brooke Addy and Meghan Nicole Gillespie**  
Mentor: Dr. Bridget Coleman

Poster 36. Comparison of Cardiopulmonary Resuscitation Training and Public Access Automated External Defibrillation (AED) Availability at the University of South Carolina Aiken and Other Universities  
**Alexandria Rae Ravenell**  
Mentor: Dr. Christopher DeWitt

Poster 37. Math Learning Centers for Student Achievement Across Disciplines  
**Kaitlyn Shaw and Megan Wren**  
Mentor: Dr. Bridget Coleman

Poster 38. Psychiatric Nursing Education and Stigma  
**Erin McCain**  
Mentor: Dr. Mary Gaffney

Poster 39. Patient Education and Hospital Readmission Rates  
**Amber Costner, Payton Slack, and Brooke Lavallee**  
Mentor: Dr. Mary Gaffney

Poster 40. Candy and Soda for Breakfast: Developing Visual Communication Tools to Promote Healthy Eating  
**Harli Rose Eggenberger and Brooke Elise Clark**  
Mentor: Dr. Brian Parr and Ginny Southworth

Poster 41. Exercise and Attention Deficit/Hyperactivity Disorder: A Review of Literature  
**Ashley Pavlosky**  
Mentor: Dr. Brian Parr

Poster 42. The Impact of Homelessness on Medication Compliance  
**Joshlyn Alexis Shells, Gigi Michelle Turner, and Lauren Ashley Whisenant**  
Mentor: Dr. Mary Gaffney

Poster 43. Day Shift vs. Night Shift Nursing  
**Baleigh Ennis, Kayla Calvert, and Kiara Addison**  
Mentor: Dr. Mary Gaffney

Poster 44. The Investigation of the Relationship Between Types of Pushup and One-repetition Maximum Bench Press Performance.  
**Kaitlyn Armstrong and Catherine McHale**  
Mentor: Dr. Andrew Hatchett
Poster 45. Exercise and Symptom Management of Posttraumatic Stress Disorder: A Review of Literature
Carrie Bess Benton
Mentor: Dr. Brian Parr

Poster 46. The Level of Moral Distress in Nursing Students
Sharon Rose Seufert
Mentor: Dr. Mary Gaffney

Poster 47. Role of Exercise in Addiction Treatment: A Review of Literature
Cassidy Donley
Mentor: Dr. Brian Parr

Poster 48. The Effects of Early Mobilization for Mechanically Ventilated Patients
Shelby Rice, Trevor Laird, and Summer Hopkins
Mentor: Dr. Mary Gaffney

Poster 49. Nursing Ratios
Courtney Westbrooke, Magen Luke, Cassie Eubanks, and Billy Swindle
Mentor: Dr. Mary Gaffney

Poster 50. The Effect of BSN Education on Adverse Events
Tori Williams, Makenzie Barbor, and Carlee Creech
Mentor: Dr. Mary Gaffney

Poster 51. Exercise and Memory Loss with Aging: A Review of Literature
Elizabeth Brielle Busbee
Mentor: Dr. Brian Parr

Poster 52. Anxiety Presence During Video Game Play
Crystal Richardson
Mentor: Dr. Laura Swain

Poster 53. Honors Capstone: The Effects of Simulated Versus Actual Resistance Training on Maximal Muscular Strength
Hannah Martin
Mentor: Dr. Brian Parr

Poster 54. Perspective Taking and Self-Other Overlap: How Self-Compassion Mitigates the Negative Effect of Blame on Helping Behavior
Emma Nettles
Mentor: Dr. Adam Pazda

Poster 55. Exercise Performance and Limitations in the Brain: The Central Governor Theory
Jesse Adam Rooker
Mentor: Dr. Brian Parr

Poster 56. Red Clothing Increase Victim Blaming in Cases of Sexual Assault
Sarah Przywara
Mentor: Dr. Adam Pazda
Poster 57. Interdisciplinary Care in Combat Veterans with Traumatic Brain Injury
**Kaitlin Swanson, Shawn Epperly, and Sarah Gilbert**
Mentor: Dr. Mary Gaffney

Poster 58. Analysis of Reading Interventions for a Group-Centered Prevention Program
**Collytte Cederstrom**
Mentor: Dr. Adam Pazda

Poster 59. Decreasing Oral Mucositis
**Kristy Ghrist**
Mentor: Dr. Mary Gaffney

Poster 60. Investigating the Degree to Which Ostracizing a Member of a Despised Outgroup Undermines Psychological Need Satisfaction.
**Emily Shakal and Emma Nettles**
Mentor: Dr. Adam Pazda

Poster 61. Nurse Residency Programs and Job Retention
**Madison Stoll, Evelyn Pittman, Kailyn Williams and Sarah Stokely**
Mentor: Dr. Mary Gaffney

Poster 62. Helping Students for the Years to Come
**Ashley Conklin, Matthew Haslinger, and Collytte Cederstrom**
Mentor: Dr. Elaine Clanton Harpine

Poster 63. Moral Distress in Nursing
**Meghan Whitfield, Alexis Oldham, and Lindsay Scurry**
Mentor: Dr. Mary Gaffney

Poster 64. Changes in Reading Ability after Intervention
**Sara P. Puckett and Matthew K. Haslinger**
Mentor: Dr. Elaine Clanton Harpine, Dr. Adam Pazda, and Dr. William Harpine

Poster 65. Exercise and Symptom Management of Autism Spectrum Disorder: A Review of Literature
**Taylor Stratton**
Mentor: Dr. Brian Parr

Poster 66. Video Games & its Effects on Social Life
**Nile Goings, Christopher Emmanuel LaFrank, and Graham Hatfield**
Mentor: Dr. Bing Han

Poster 67. Is This Your Card? The Effect of Deception on Physiological Response During the Concealed Information Test
**Iesha Knight, Leonela Salabarria, and Andre George Simmond**
Mentor: Dr. Keri Weed

Poster 68. Therapeutic Resources for Children with Autism Spectrum Disorder in the Central Savannah River Area
**Emily Jones**
Mentor: Dr. Michelle Petrie
Poster 69. Comparing Collegiate Classroom Performance by Major and First Generation Status
**Katlin Pugh, Heather Ard, and Colin Nettles**
Mentor: Dr. Laura Swain and Dr. Meredith Elzy

Poster 70. Honors Capstone: Traveling Interdisciplinary Literacy Trunk (TILT) Integrating Within SC History
**Katelyn Oliver Spragg**
Mentor: Dr. Deborah McMurtrie

Poster 71. Effects of High-Definition Transcranial Direct Current Stimulation (HD-tDCS) on Inhibitory Control
**Mason T. Rodriguez**
Mentor: Dr. Alexandra Roach

Poster 73. Investigating Gaze Attention to Colors as a Function of Extraversion: An Eye-Tracking Study
**Tabitha Mathis and Gabrielle Gray**
Mentor: Dr. Adam Pazda
Dr. Michael J. Barresi

We are pleased to have Dr. Michael Barresi as our keynote speaker. Dr. Barresi is an Associate Professor of Biology at Smith College in Northampton Massachusetts.

Dr. Barresi teaches a variety of undergraduate courses in biology ranging from introductory cell biology to upper level developmental biology. Dr. Barresi’s research focuses on the molecular and cellular mechanisms that determine the way in which nervous systems form – his model organism for these studies is the zebrafish.

Importantly, Dr. Barresi is a strong proponent of the value of undergraduate research. His presentation will describe the nature of his work and his use of Course-based Research Experiences in advancing his research goals.

For generations of students, the laboratory course has been one of the primary opportunities to gain “hands-on” experience conducting science. Despite the practical training students receive in these laboratory courses, they have historically lacked the inclusion of novel inquiries and true research objectives. In addition, the ever-increasing pressure for undergraduates to gain legitimate research experience prior to graduation often surpasses the capacity of faculty research labs. Course-based Research Experiences (CRE) present one viable solution to meet the student demands for practical training in research while also achieving advances in one’s scholarship and deeper learning for the students. Professor Barresi has been offering successful CRE type laboratories since 2005. During his presentation Prof. Barresi will describe two different CREs focused on Developmental Biology and the advantages and disadvantages between offering these CREs to first-year students or to upper-level students.
Acknowledgements

We wish to thank USC Aiken alumna, Ms. Celeste Suggs, for her generous contribution and continuous support of Research Day and Scholar Showcase.

“I do believe that exposure educates us—exposure to information, to experiences, to different types of people of ways of living and to Research Day presentations—all these exposures give us different views. In sorting and comprehending these views, we are learning.”

We also wish to thank the following:

Scholar Showcase Organizing Committee:
Prof. Jack Benjamin
Dr. Edward Callen
Dr. C. Nathan Hancock
Dr. Michele Harmon
Dr. Timothy Lintner
Dr. William Jackson

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Scholar Showcase logo designed by Lauren Carver and Linh-Da Nguyen
Men's Reference and Interlibrary Loan Offices

Conference Room

Director's Office

Circulation

Reserves

Reference and Interlibrary Loan Offices

Reference Desk

Seating Area

Math Lab

Periodicals

Back Library Area
Oral Session C

Scholar Showcase Poster Session

Women's Reference

Computers

Old Veterans Center
Oral Session B

Gregg Graniteville Rm
Oral Session A

Gregg Graniteville Library
First Floor
Scholar Showcase Events in Red

ENTRANCE

Gregg Room

Swint Room

Registration